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File: USPT

Jul 16, 2002

L2: Entry 1 of 2

DOCUMENT-IDENTIFIER: US 6421470 B1  
TITLE: Image processing apparatus and audio-coded recording media

US PATENT NO. (1):  
6421470

Detailed Description Text (48):

In one method of hearing the sound, a storage position of the audio data corresponding to the clicked or selected audio code is located by using object makeup information. This audio data is put to an appropriate decoding process, and transmitted to the speaker to produce the sound. This method is based on the precondition that the audio data corresponding to the audio code is stored in an accessible form. In the other method used where the above precondition is not satisfied, the two-dimensional code corresponding to the selected audio code is taken out of the frame memory as separated from the still image data. The two-dimensional audio code is put to a reverse conversion to restore the original audio data. The audio data restored is put to an appropriate decoding process, and transmitted to the speaker to produce the sound.

Detailed Description Text (55):

A pointing device 381 such as a mouse is used to select the frame of an audio code to be checked. The controller 390 identifies a corresponding audio data from the object makeup information, and reads the corresponding audio data from the storage 320 by means of an audio data retriever 382. The audio data read is put to a necessary decoding process at an audio reproducer 383 and transmitted to a speaker 384 as an amplified analog audio signal. As a result, an original sound is released from the speaker 384. By listening to the sound, the operator is able to check whether the audio code image displayed on the monitor 360 is correctly combined with a still image displayed simultaneously.

Detailed Description Text (56):

In the absence of the selected audio code image from the storage 320, the controller 390 reads only the audio code image corresponding to the selected audio code frame from the frame memory 350 and transmits the code to a reverse converter 385. The reverse converter 385 carries out a process reverse to what is done at the audio data two-dimensional encoder 342, to convert the audio code into audio data. The audio data obtained from the reverse converter 385 is put to a necessary decoding process at the audio reproducer 383 and transmitted to the speaker 384 as an amplified analog audio signal. As a result, an original sound is released from the speaker 384.

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TITLE: Image processing apparatus and audio-coded recording media

DATE-ISSUED: July 16, 2002

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nozaki; Iwao	Wakayama			JP
Imade; Shinichi	Iruma			JP
Yoshioka; Kenji	Hachioji			JP

## ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Noritsu Koki Co., Ltd.	Wakayama-Ken			JP	03
Olympus Optical Co., Ltd.	Tokyo			JP	03

APPL-NO: 09/ 194811 [PALM]  
DATE FILED: December 2, 1998

## FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	9-174416	June 30, 1997
JP	9-284828	October 17, 1997

## PCT-DATA:

APPL-NO	DATE-FILED	PUB-NO	PUB-DATE	371-DATE	102(E)-DATE
PCT/JP98/02494	June 5, 1998			Dec 2, 1999	Dec 2, 1999

INT-CL: [07] G06 K 7/10, G06 K 9/20

US-CL-ISSUED: 382/321; 707/500.1  
US-CL-CURRENT: 382/321; 715/500.1

FIELD-OF-SEARCH: 382/183, 382/317, 382/321, 382/232, 235/454, 235/462.13, 235/470,  
388/474, 345/302, 355/40, 707/500.1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	5276472	January 1994	Bell et al.	396/312
<input type="checkbox"/>	5614946	March 1997	Fukuoka	382/232
<input type="checkbox"/>	5650826	July 1997	Eitz	348/468
<input type="checkbox"/>	5757468	May 1998	Patton et al.	355/40
<input type="checkbox"/>	5873735	February 1999	Yamada et al.	382/183

#### FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
7181606	July 1995	JP	
7214939	August 1995	JP	
9149365	June 1997	JP	

ART-UNIT: 2623

PRIMARY-EXAMINER: Johnson; Timothy M.

#### ABSTRACT:

An image processing apparatus capable of simply and reliably handling two different forms of information, audio and image, as linked together in order to record the information on the same recording medium. This image processing apparatus has an image input unit (10) for inputting image information, an audio input unit (60) for inputting audio information, a link processing unit (130a) for setting link information to link the image information and audio information, a code converter (242) for converting the audio information into an optically readable audio code image, and a printing device (30) operable based on the link information for recording a visual image corresponding to the image information and the audio code image on a predetermined recording medium. One can not only visually enjoy the image recorded on the recording medium, but hear a sound from the audio code image recorded on the recording medium with an appropriate reproduction device.

3 Claims, 20 Drawing figures

## End of Result Set



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L3: Entry 1 of 1

File: USPT

Feb 9, 1999

US-PAT-NO: 5870771

DOCUMENT-IDENTIFIER: US 5870771 A

TITLE: Computerized system for selecting, adjusting, and previewing framing product combinations for artwork and other items to be framed

DATE-ISSUED: February 9, 1999

## INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Oberg; Larry B.

Washington

MO

63090

APPL-NO: 08/ 749418 [PALM]

DATE FILED: November 15, 1996

INT-CL: [06] G06 F 17/60

US-CL-ISSUED: 707/502; 345/962, 345/964

US-CL-CURRENT: 715/502; 345/962, 345/964

FIELD-OF-SEARCH: 707/517, 707/502, 707/527, 345/962, 345/964, 345/968

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected

Search ALL

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	4149246	April 1979	Goldman	364/200
<input type="checkbox"/>	4434467	February 1984	Scott	364/400
<input type="checkbox"/>	4546434	October 1985	Gioello	364/300
<input type="checkbox"/>	5053956	October 1991	Donald et al.	364/401
<input type="checkbox"/>	5111392	May 1992	Malin	364/401
<input type="checkbox"/>	5195030	March 1993	White	364/401
<input type="checkbox"/>	5291395	March 1994	Abecassis	364/401
<input type="checkbox"/>	5343386	August 1994	Barber	364/400
<input type="checkbox"/>	5432904	July 1995	Wong	395/161
<input type="checkbox"/>	5493679	February 1996	Virgil et al.	395/600
<input type="checkbox"/>	5535320	July 1996	Gay et al.	707/515
<input type="checkbox"/>	5550746	August 1996	Jacobs	364/479.01
<input type="checkbox"/>	5570292	October 1996	Abrahm et al.	364/473.01
<input type="checkbox"/>	5649220	July 1997	Yosefi	395/788
<input type="checkbox"/>	5664352	September 1997	Beckman	40/545

#### OTHER PUBLICATIONS

FrameShop found on the Internet at:  
<http://www.visionworksinc.com/visionworksinc/FrameShop.html>. Jan. 20, 1997.

ART-UNIT: 271

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Loomis; John C.

#### ABSTRACT:

A computerized system having means for displaying a digital image of an object such as an object of artwork supplied by the user, analyzing the color composition of the image, searching a database for coordinating frame and matting material products, developing composite images of the user's input with the matching selections, and presenting the digital images to the user so the items may be previewed before placing an order. The system interfaces with a mobile digital camera system for taking digital pictures of input supplied by the customer. The image may be cropped or otherwise altered and combined with the selected frame moulding and matting material combinations. The user may experiment with various features such as color, shape, size, width, number of openings, and other characteristics of frames and matting material until the desired combination is achieved. The system also includes a database of merchandising information such as products and materials, colors and designs available, model numbers, size, material type, cost, and supplier source. The system is capable of generating a printout of the composite image and associated data, and of storing the data for later use.

33 Claims, 6 Drawing figures